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Biotechnology - GE Plants and Animals

Paraguay Biotechnology Annual Report

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Report Highlights:
Round-Up Ready (RR) soybean is the only commercially approved biotech crop in Paraguay. In October, the Paraguayan Minister of Agriculture signed a resolution that allows field trials for several corn events requested by different companies.

Paraguay's royalty collection system is a well documented success story in the region, and continues to operate as an agreement between Monsanto and the farmers. The government is informed once the price is set.

Section I. Executive Summary:

The main agricultural exports of Paraguay are soybeans and cotton. Soybeans are grown mainly in eastern Paraguay along the border with Brazil. Soybeans are produced on large mechanized farms, while cotton production is less centralized and is mainly produced on small subsistence farms. Paraguay is also the largest exporter of organic sugar to the United States. Cattle are also raised in Paraguay, and Paraguayan beef is exported to many countries including Chile and the Russian Federation. Paraguay is interested in gaining access to the U.S. market for beef. The United States has good relations with Paraguay.

As per the International Service for the Acquisition of Agri-biotech Applications, ISAAA, Paraguay is the seventh largest soybean producer in the world (after the United States, Brazil, Argentina, India, Canada and China), producing about two percent of the world's soybean production. The country increased its biotech soybean area to account for 95 percent of the country's total soybean crop. Before the 2004/2005 season, the country did not allow the use of biotech seeds.

In October 2010, the Paraguayan Minister of Agriculture signed a resolution that allows field trials for several corn events requested by different companies. The resolution removed the requirement that the analysis of new varieties include environmental licenses issued by the Secretariat of Environment (SEAM) for experimental field trials. Delays in issuing the licenses were a serious barrier to completing the analysis of new events. Under the October resolution, the requirement for environmental licenses was removed for field trials, but remains for final approval of commercial release.

Paraguay is well behind the rate of adoption in neighboring countries, particularly related to the rapid development in approval of biotech varieties (now 18) that Brazil has shown over the last 2 years. The delay in approvals has generated concern in the agricultural sector and is encouraging the use of illegal seeds containing events not approved yet in the country. The private sector lobbied with different agencies of the government to change the requirement for the environmental licenses.

Paraguayan farmers agreed in March 2005 to pay royalties to Monsanto for the use of its living modified organism (LMO) soybean varieties starting the 2004/2005 crop year. Since then, Monsanto and farmers have agreed upon the price of royalties paid based on each year's production level.

Paraguay is still working to pass and implement a biosafety law. Since 2003, the Paraguayan National Congress has been evaluating a draft biosafety bill that would regulate the eventual production and commercial release of LMO products in the country.

Section II. Plant Biotechnology Trade and Production:

There are currently eleven soybean RR varieties approved for planting and commercialization. Bt cotton (a Monsanto variety) has been approved for field trials (see Appendix A). About 95 percent of Paraguay's 2.68 million hectares of total soybean area was planted with RR varieties for the 2009/10 season.

There are currently three corn varieties under analysis: MON 810; NK 603; and BTRR (MON 810 x

NK603) as well as two cotton varieties RR and BtRR (both Monsanto varieties).

Approvals in Argentina, the United States, and Canada are taken into account as a precedent in the approval evaluation process.

Paraguay is not a recipient of food aid.

Section III. Plant Biotechnology Policy:

Current Situation of Regulatory Framework

The current regulatory framework applied to biotech seeds and to biosecurity is incomplete. Paraguay, in recognition of its need to regulate biotech seeds, has proposed several biosecurity laws based on discussions within its Biosecurity Commission (COMBIO), regulations in place in MERCOSUR countries, and the results of three public hearings. The country is still working to pass and implement a biosafety law. Since 2003, the Paraguayan National Congress has been evaluating a draft biosafety bill that would regulate the production and commercial release of LMO products in Paraguay. The Ministry of Agriculture drafted the bill collaboratively with FAO, and with input from interested sectors of the Paraguayan society. As the bill is currently written, the Ministries of Agriculture, Environment, and Health will jointly enforce the law, while the Biosecurity Commission (COMBIO) will continue to advise the Ministries on technical issues. The National Service of Seed and Vegetables Quality, (SENAVE) would advise the Ministry of Agriculture on policy issues.

From 2009 to October 2010 Paraguay required companies to obtain environmental licenses in order to get the approval to begin experimental field trials. Licenses are issued by the Secretary of Environment (SEAM) and it is extremely difficult to comply with the requirements to obtain them. Seed companies have strongly voiced their concerns and have been successful in obtaining support from the current Minister of Agriculture who signed a resolution that allows field experimentation without the requirement of an environmental license. Licenses are still required for commercial release of events.

Biosecurity Commission (COMBIO)

The COMBIO is the commission in charge of analyzing and advising on the introduction, field trials, and environmental release of biotech plants. This commission acts as an advisory organism and includes representatives of the Ministry of Health, the Ministry of Agriculture and Livestock, and the Ministry of Environment, as well as representatives of scientific institutions and the farming sector.

Functions of the commission include:
- Receipt and evaluation of requests for use of new biotech events,
- Risk analysis (carried out by a private company).
- Control and inspection (as requested by the involved ministries).
- Information exchange with national and/or international public and private institutions in reference to risk analysis and approval for commercialization of LMOs.
- Technical advice to the involved ministries in reference to policy implementation and national strategy related to biosecurity.

(See appendix B for a complete description of the approval process)

Traceability

No provision for a traceability system is in place nor has this been included under the proposed law. Tests for biotech content in shipments arriving to Paraguay are not conducted either.

Labeling

Biotech products that are marketed may be required in the future to bear a label that contains specific information required by the Ministry of Industry and Commerce Officials of the Ministry of Agriculture, when questioned about labeling requirements indicated that Paraguay should establish information labeling requirements according to CODEX resolutions. However, this is not stated in the proposed law, where provisions for labeling are vague.

Stacked Genes

Paraguay has not yet established a policy on stacked genes.

Coexistence

Paraguay has not yet established a policy on coexistence.

Royalties

Framework Agreement signed in support of Royalty Collection System

Paraguayan farmers agreed on March 2, 2005 to pay royalties to Monsanto Co. for its biotech soybeans beginning in the 2004/2005's crop year. The agreement was signed between Paraguayan farm groups and Monsanto's Paraguayan branch. Paraguayan farmers, as well as those in Brazil and Argentina, had used Roundup Ready soybean seeds for years without paying royalties. The price is negotiated between the provider of the technology (in this case Monsanto) and the user (the farmer), informing the GOP once the price is set. In 2010 they paid $4.40 per bag of seed used to sow one hectare, based on yields of the last campaign.

According to the agreement, a portion of those royalties will go to crop research and germplasm improvement within the country. The Institute for the Incorporation of Biotechnology (INBIO) receives payment of 10% of received royalties every crop year from Monsanto. The INBIO, an organization that integrates representatives of the whole Paraguayan agricultural sector, is in charge of financing training and research related to Biotechnology. Investment percentages are used as follows: 55% research; 15% grants; and 30% to strengthen the sector.

Although this royalty collection scheme is only negotiated for soybeans (eventually it will be negotiated for cotton and corn once approvals are granted), it is a positive step in closing Latin America's biotech

black market.

Cartagena Biosafety Protocol (CBP)

In 2003, Paraguay ratified the Cartagena Biosafety Protocol (CBP). Since early 2010, the Foreign Affairs Ministry is in charge of the provisions of the CBP. Over the last year, Paraguay has become a strong player in meetings of the parties sending delegations with full technical expertise, although the Biosafety Clearing House is still in process.

Section IV. Plant Biotechnology Marketing Issues:

Paraguay's approval policy for LMOs is closely linked to Brazilian policy. Additionally, it is important to mention that the Paraguayan public is not well educated on the topic of agricultural biotechnology. Limited knowledge of popular science among consumers has led to many myths and rumors regarding agricultural biotechnology. The situation of misinformation is even worse in rural areas, where some Non Governmental Organizations, NGOs, put pressure on small farmers against the adoption of agricultural biotechnology.

There are no relevant studies on marketing of biotechnology products in Paraguay.

Section V. Plant Biotechnology Capacity Building and Outreach:

2004

1. FAS Buenos Aires selected one Paraguayan journalist that participated in a U.S. Grains Council biotech activity in Hawaii. The participant learned about the U.S. papaya industry's success due to biotech varieties.

2. With Cochran funding, FAS Buenos Aires sponsored two-week biotechnology training in the United States for one representative of the Paraguayan government, organized by FAS and Michigan State University.

3. FAS Buenos Aires selected two Paraguayan producers that attended the Farmer-to-Farmer workshop at the University of Zamorano, Honduras.

4. FAS Buenos Aires organized a two-day conference directed to Paraguayan Congressmen, but also to media, academia, government officials, and the public in general, as a continuation to a seminar organized in 2002. The activity was very successful in terms of attendance (48 congressmen in attendance the first day and 300 people in attendance the second day).

2005

-- FAS Buenos Aires, in concert with FAS Santiago and OCBD, organized and accompanied a Southern Cone Congressional Delegation to the United States to demonstrate how the United States uses and regulates agricultural biotechnology. One Paraguayan Deputy participated in the activity.

2007

-- FAS Buenos Aires, in concert with the U.S. Codex office, organized a working meeting where representatives of several Latin America and Caribbean Countries, as well as Canada and the U.S., discussed their countries' positions regarding labeling of Biotech foods.

-- FAS Buenos Aires organized a working breakfast for Paraguayan journalists, where regional experts from neighbor countries as well as Paraguayan experts presented the region's current situation and future expectations on biotechnology, followed by an open debate and discussion.

2009

-- FAS Buenos Aires organized a Biotechnology Seminar that included over 250 participants, and also a supper for key decision makers of the country.

2010

-- FAS Buenos Aires sent a Paraguayan representative to participate in a seminar on biotechnology and climate change in Chile.

Proposed activities

FAS Buenos Aires proposes a continuation of education and outreach activities as well as a more targeted information campaign. Specific activities may include:

1. Workshops to target producers and consumers in different cities around the country, in areas that rarely have access to "first hand" information.

2. Coordination with local universities to demonstrate the benefits of biotechnology in Paraguay.

3. Continue Cooperator, Cochran and International Visitor Program activities

4. Workshop specifically targeting medical doctors and nutritionists, explaining the innocuousness of biotech products.

5. New strategies along with more frequent and sustained efforts to better educate small farmers to understand biotechnology.

6. Conduct a regional workshop in risk assessment directed to Argentine, Paraguayan, and Uruguayan experts.

7. Organize a seminar especially directed to journalists.

8. Organize a national workshop on Risk Assessment targeting government officials.

9. Conduct special activities designed for Consumer Association leaders and consumers in general.

Section VI. Animal Biotechnology:

Paraguay has no policy in place regarding genetic engineering or cloning of agriculturally relevant animals. The government approach for new technologies is to regulate if deemed necessary. Unfortunately, misinformation is the first news acquired by communities and the media. It is important that before the government adopts a clear policy on a new technology that long term educational outreach activities must conducted.

Section VII. Author Defined:

Reference Materials

Paraguayan Ministry of Agriculture and Livestock (in Spanish)
http://www.mag.gov.py/

National Service of Plant Health Quality, SENAVE (in Spanish)
http://www.senave.gov.py/

INBIO
http://www.inbio-paraguay.org/